



CHESTER
ENGINEERS

RECEIVED
MAY 1 1997

March 10, 1997 -

Mr. Jerome M. Curtin
Compliance Officer
CERCLA Cost Recovery Section (3HW12)
U.S. Environmental Protection Agency
841 Chestnut Building
Philadelphia, Pennsylvania 19107

Dear Mr. Curtin:

These responses have been prepared by John T. Lucey, Jr., who was the Chester Project Manager responsible for working with Breslube-Penn in 1985. Mr. Lucey reviewed the enclosed documents, but did not consult with anyone in the preparation of these responses.

1. Chester Engineers provided engineering services and analytical laboratory services to Breslube-Penn. These services were provided to characterize their wastewater streams, to perform treatability studies, and to prepare an application requesting service for industrial wastewater discharge to the Moon Township Municipal Authority. The work was performed for Mr. Ahsen Yelkin, Vice President of Operations and Mr. Joseph Chalhoub, President. The facilities and its operations are described in the enclosed application.
2. We only know what is stated in Response No. 1. Copies of business cards for the referenced persons are enclosed.
3. The documents are enclosed and are described in Response No. 1.
4. All information available is enclosed.
5. Breslube employees are addressed in Responses 1 and 2. Mr. Robert Helwick and Mr. John Schrader, both employees of Chester Engineers, were responsible for the laboratory analyses and treatability studies. Chester point of contact will be John T. Lucey, Jr., Chester Engineers, Inc., Cherrington Corporate Center, 600 Clubhouse Drive, Pittsburgh, Pennsylvania 15108-3195; phone number: 412-269-5726.

600 Clubhouse Drive
Pittsburgh, Pennsylvania 15108
412-269-5700; Fax 412-269-5749

Mr. Jerome M. Curtin
U.S. EPA
March 10, 1997
Page 2

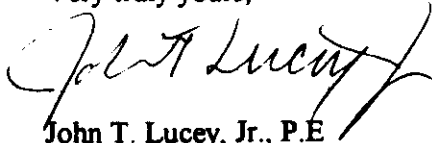
6. Unknown.
7. Unknown.
8. All known information is enclosed.
9. No materials were provided by Chester.
10. No materials were provided by Chester.
11. The only authorities with whom we interacted were the Moon Township Municipal Authority and Coraopolis Municipal Sanitary Authority, both as described in the enclosed documents.
12. See enclosed.
13. None are known.
14. None are known.
15. None are known.
16. None are known.
17. Not relevant to our services provided.
18. No such predecessors in our business.
19. None are known relative to their activity at the Breslube site.
20. None are known.
21. All information which we have been exposed to relative to the Breslube site is enclosed.

Mr. Jerome M. Curtin
U.S. EPA
March 10, 1997
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22. Not relevant.

23. None are known.

Very truly yours,

A handwritten signature in cursive script, appearing to read "John T. Lucey, Jr.", written in dark ink.

John T. Lucey, Jr., P.E.
President & COO

JTL/kak/3210

Enclosures

GENERAL ORDER ENTRY FORM

ORDER ENTRY NO. 3492-20 PURCHASE ORDER NO. G19 PROPOSAL NO. & DATE 5585-03-05
 AGREEMENT DATE 1/8/85 PARAGRAPH NO. _____
 CONTRACT DATE _____ START DATE 1/8/85 COMPLETION DATE 3/30/85
 CLIENT NAME: BRESLUBE-PENN, INC. PHYSICAL LOCATION OF PROJECT CORAPOLIS, PA.
 Address 84 MONTGUE ROAD
 (for billing purposes) CORAPOLIS, PA. 15108 TYPE OF CONTRACT PD
 DESCRIPTION OBTAINING PERMISSION TO DISCHARGE POTW PD BILLING RATE IND BASE + 2.55
 CLIENT: Private/Public (Circle One) SALE VALUE (Less Subcontract) \$ _____
 DEPARTMENT: (S, C, O, R, AD) C TOTAL SALE VALUE \$ 6,000
 PROJECT MANAGER JOHN T. LUCEY JR. PD EXPENSES TO BE BILLED AT COST OR + 15%

		MAN HOURS TO COMPLETE			
LABOR:		Hours	Cost	EXPENSES:	Cost
Chief Technical Consultant	(2)		\$ _____	Transportation (Mileage, Airfare & Car Rental) (300)	\$ _____
Engineer Manager III	(3)	<u>6</u>	<u>255.-</u>	Miscellaneous Travel (301)	_____
Engineer Manager II	(4)	_____	_____	Per Diem (Meals, Lodging & Subsistence) (302)	_____
Engineer Manager I	(5)	_____	_____	Business Related Meals (303)	_____
Engineer/Scientist V	(8)	_____	_____	Photocopies (340)	<u>25</u>
Engineer/Scientist IV	(9)	_____	_____	Multilith (341)	_____
Engineer/Scientist III	(10)	<u>120</u>	<u>3420.-</u>	Postage & Express Mail (342)	<u>25</u>
Engineer/Scientist II	(11)	_____	_____	Itek (344)	_____
Engineer/Scientist I	(12)	_____	_____	Prints, etc. (345)	_____
Fund. Analyst	(13)	_____	_____	Expendable Supplies (346)	_____
Drafter IV	(21)	_____	_____	Computer Usage (347)	_____
Drafter III	(22)	_____	_____	Company Vehicle Mileage (348)	_____
Drafter II	(23)	_____	_____	Courier Service (349)	_____
Drafter I	(24)	_____	_____	Equipment Rental (351)	_____
Technician IV	(27)	_____	_____	Telephone (440)	_____
Technician III	(28)	_____	_____	Subcontractors (625)	_____
Technician II	(29)	_____	_____		_____
Technician I	(30)	<u>10</u>	<u>125.00</u>	Total Expenses	\$ <u>52</u>
Total Labor		<u>136</u>	<u>\$3800.-</u>	TOTAL LABOR AND EXPENSES	<u>\$3850.-</u>

CLIENT PERSONNEL IN CHARGE:

ALLEN VELKIN

BUSINESS DEVELOPMENT BY:

ALF LISA ITI / J.T. LUCEY

APPROVALS

DATE

PROJECT MANAGER

DEPT/DIV MANAGER

VICE PRESIDENT

2/11/85

2/17/85

2/22

for filing
in contract
file

Maureen D. McFalls
Attorney At Law
903 Standard Life Building
345 Fourth Avenue
Pittsburgh, PA 15222
(412) 765-2605

100111 10

Bob Helwick ✓

John Lacey ✓

*Demonstrators Need To
Stop Work If Payment
Not Received In REASONABLE
PERIOD - THIS WENT ON
MUCH TOO LONG.*

1/30

Anthony Lisanti
The Chester Engineers
P.O. Box 9356
Pittsburgh, PA 15225

Dear Tony:

I spoke last week with the Controller of Breslube Enterprises,
Mr. Ernie Trompke, regarding payment of Chester's outstanding
Breslube-Penn, Inc. invoices.

Mr. Trompke informed me that he is in receipt of copies of all
the outstanding invoices and acknowledges the amount owing at
\$20,445.35. Breslube has offered to pay 33 1/3 cents on the
dollar to all its creditors, and is willing to make the same
offer to Chester. As you know, the company has ceased all oper-
ations and does not have sufficient assets to cover its liabil-
ities. I told Mr. Trompke I would transmit his offer to you and
let him know your response. Even if Chester decides to accept
the offer, I'm not certain that Breslube can pay one-third imme-
diately, however, Trompke indicated that he would discuss this
matter with the president of Breslube as soon as possible and
pass such information on to me.

Please let me know how you would like me to proceed. *Telephoned 1/27*
proceed w/ partial payment agreement if paid within 60 days
-if not file legal claim w/ all costs.

Sincerely,

Maureen McFalls

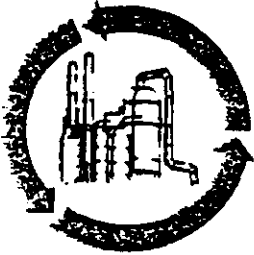
Maureen D. McFalls, Esq.

MMF/lc

cc: Alfred Baily
R. A. Radish

Copy to: Maureen McFalls, Esq.

→ Accounting



BRESLUBE-PENN INC.

84 MONTGOMERY ROAD, CORAOPOLIS, PENNSYLVANIA 15108

TEL (412) 284-4280
TELEX 00902977

February 2, 1987

The Chester Engineers
P.O. Box 9356
Pittsburgh, Pennsylvania
15225

Attention: John T. Lucey, Jr.

Dear Mr. Lucey:

As you may know, BresLube Penn, Inc., has experienced considerable financial difficulties. We appreciate the patience many of our creditors have demonstrated.

To enable us to discharge balances currently owed by BresLube Penn, we are asking creditors to accept the following payment arrangement:

Our records show that you are owed \$ 20,400.00. Under our proposal, you would be paid \$ 6,800.00 as a complete discharge of all claims you may have against BresLube Penn, Inc.

If this arrangement is satisfactory, please indicate below.

Yours very truly,

Ernie Trompke

Accepted with understanding we will receive the payment of \$6,800.00
within sixty (60) days of date of acceptance of offer
Agreed and accepted this 12th day FEB, 1987.

Maureen McFalls, V.P.
Signature

c: Maureen McFalls

LABORATORY ORDER ENTRY FORM

ORDER ENTRY NO. 3492-90 PURCHASE ORDER NO. 619 PROPOSAL NO. & DATE 5585-03-25
 START DATE 2/12/85 COMPLETION DATE 2/12/85
 CLIENT NAME BRESLUBE-PENN INC. PHYSICAL LOCATION OF PROJECT: CORADOLIS
 ADDRESS 84 MONTGOMERY ROAD
 (For Billing Purposes) CORADOLIS, PA 15108 TYPE OF CONTRACT PD
 DESCRIPTION ANALYSES OF LNO WASTEWATER PD Billing Rate NO BASE 2.8
 CONTRACT STATUS REPORT (Yes-No) _____ ESTIMATED SELL VALUE: _____
 LAB ANALYSIS (2813-01 Type) _____
 PD EXPENSES TO BE BILLED AT COST OR + 15 % GC/MS ANALYSIS (2813-05 Type) _____
 PROJECT MANAGER JOHN TILLY JR. OTHER RELATED WORK _____
 TOTAL SELL VALUE 1950

LABOR:	MAN HOURS TO COMPLETE		EXPENSES:	Cost
	Hours	Cost		
Chief Technical Consultant (2)	<u>2</u>	\$ _____	Transportation (300)	\$ _____
Engineer Manager III (3)	<u>2</u>	_____	Miscellaneous Travel (301)	_____
Engineer Manager II (4)	_____	_____	Per Diem (302)	_____
Engineer Manager I (5)	_____	_____	Photocopies (340)	_____
Engineer/Scientist IV (9)	_____	_____	Postage (342)	_____
Engineer/Scientist III (10)	_____	_____	Expendable Supplies (346)	_____
Engineer/Scientist II (11)	_____	_____	Co. Vehicle Mileage (348)	_____
Engineer/Scientist I (12)	<u>54</u>	_____	Sample Shipment (349)	_____
Technician IV (27)	_____	_____	Equipment Rental (351)	_____
Technician III (28)	_____	_____	Telephone (440)	_____
Technician II (29)	_____	_____	Subcontractors (625)	_____
Technician I (30)	<u>4</u>	_____	Total Expenses	\$ _____
Total Labor	_____	\$ _____	TOTAL LABOR & EXPENSES	\$ _____

CLIENT PERSONNEL IN CHARGE:

AHSEN FELDIN

PROJECT MANAGER

John T. Tilly Jr.

DATE

2/19/85

APPROVAL

T. Tilly Jr.

2-19-85

1/85



BRESLUBE-PENN INC.

AHSEN YELKIN
Vice-President Operations

84 Montour Road
Coraopolis, Penn. 15108

Phone (412) 264-4280
Telex 902977

Breslube Enterprises
P.O. Box 130
Breslau, Ontario, Canada
N0B 1M0

JOSEPH CHALHOUB, P.Eng.
President

Office (519) 648-2281
Control Room (519) 648-2204

heChesterEngineers

Ref. No. 3492-20

October 29, 1985

Moon Township Municipal Authority
1000 Beaver Grade Road
Coraopolis, PA 15108

ATTN: Mr. Richard Zollinger

Gentlemen:

Re: Breslube-Penn, Inc.

As stated in our July 18, 1985 letter, we have conducted a program of additional sampling and treatability studies to provide you with the information that you had requested on the efficiency of the proposed pretreatment process. The program was conducted as follows:

1. Wastewater samples were collected on five different days (8/9, 8/13, 8/21, 8/23 and 8/29). Samples of the raw dehydration, emulsion breaking and coolant wastewaters were collected (referred to as ⁰¹ or primary treatment). In addition, the Breslube personnel neutralized and filtered samples of the dehydration, emulsion breaking and coolant wastewaters. The resultant filtrate was collected and referred to as ⁰² or secondary treatment. Both the coolant wastewater and the emulsion breaking wastewater are routinely treated on the Breslube site through the emulsion breaking process described in the original application.
2. The collected samples were analyzed for pH, BOD₅, freon extractables, phenolics, ammonia, cyanide, chromium, copper, lead, nickel and zinc.
3. The samples were then mixed in the proportions similar to those that would be expected in a pretreatment operation. This is, one part of emulsion breaking water with 1-1/2 parts of coolant water and 1-1/2 parts of dehydration water. The mixtures were allowed to sit in a quiescent state for five days. The oil was then skimmed off the top.
4. The remaining mixtures were then analyzed for the parameters listed above as well as volatile organic compounds.

October 29, 1985

5. Treatment of the mixtures was then performed in a 1000 mL glass beaker as follows:
 - a. neutralize with lime to pH 9; mechanically agitate for 15 minutes
 - b. add 10 mg/L of sodium sulfide and 1 gram/liter of activated clay and mix for 5 minutes
 - c. filter through 5u Whatman paper
6. The effluent was then analyzed for the parameters listed in 2. above.

The results of the program described above are enclosed. The results of the treatment of the secondary treatment wastewaters are provided for your information only. This practice will not be implemented. The proposed pretreatment process will remain as presented in the original application with the exception of the addition of 1 gram/liter of activated clay in the chemical treatment step. As can be seen in the enclosed results, the laboratory treatability study using this process with the raw wastewater produced the following effluent quality.

<u>Effluent Quality</u>			
	<u>Average</u>	<u>Maximum</u>	<u>Minimum</u>
pH	8.5	8.5	8.4
BOD ₅ , mg/L	2860	4200	1400
Freon Extractables, mg/L	36.6	57	13
Phenolics, mg/L PhOH	26.3	100	1.7
Ammonia, mg/L N	39	101	3.8
Cyanide, mg/L CN	less than 0.025	0.062	less than 0.01
Chromium, mg/L Cr	less than 0.01	0.01	less than 0.01
Copper, mg/L Cu	0.03	0.06	0.01
Lead, mg/L Pb	0.06	0.12 ←	0.01
Nickel, mg/L Ni	0.14	0.23	0.09
Zinc, mg/L Zn	0.16	0.26	0.07

The effluent produced in the laboratory met all of the previously reported effluent limitations for all but one borderline excursion on both ammonia and lead. A full scale operation with automatic pH control to maintain the pH at or near 9 can be expected to produce a more consistent quality effluent that would consistently meet the effluent limitations.

Moon Township
Municipal Authority

-3-

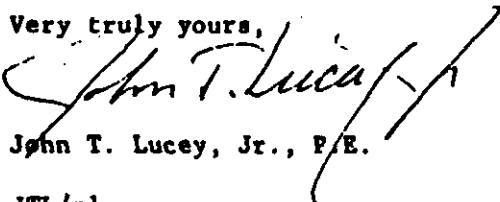
October 29, 1985

In response to your comments and those by the Allegheny County Health Department, we ran volatile organic compound analyses on several of the samples. The results of these analyses are also enclosed. Discharge of these compounds to a POTW is not specifically regulated by EPA for the Petroleum Refining Lube Subcategory. However, the concentrations of these compounds provides an indication of whether vaporized volatile compounds will be released in the sewer system. It can be noted that the concentrations of the various compounds are in each case well below their solubility in water. This does not preclude their volatilization and release to the atmosphere, when exposed to that atmosphere under the proper conditions. However, at these low concentrations and especially at the lower concentrations that will exist in the sewer system due to dilution, little volatilization can be expected. The solubility in water for the various compounds is listed in Attachment 1.

You will note that an analysis of the tank bottom drainings has not been included. Breslube has terminated the direct discharge of these and has been routing these drainings either through the dehydration or emulsion breaking systems. This practice would continue with pretreatment and discharge.

We trust that this provides you with the additional information that you have requested.

Very truly yours,



John T. Lucey, Jr., P.E.

JTL/pl

Attachment

cc: Breslube-Penn, Inc.

ATTACHMENT 1

SOLUBILITY OF RELEVANT VOLATILE COMPOUNDS

<u>Source</u>	<u>Solubility (mg/L) at 20°C</u>
Benzene	1,800
Chloroform	8,200
1,1 Dichloroethane	5,500
1,2 Dichloroethane	8,690
1,1 Dichloroethylene	400
Ethylbenzene	152
Methylene Chloride	20,000
Tetrachloroethylene	150-200
Toluene	535 @ 25°
1,2 Trans-Dichloroethylene	600
1,1,1 Trichloroethane	4,400
Trichloroethylene	1,100

Chester Laboratories

A Division Of

The Chester Engineers

P.O. Box 6344
Philadelphia
Pennsylvania 19125
Phone: (412) 269-5700

Laboratory Analysis Report For

BresLube-Penn, Inc.
Coraopolis, Pennsylvania

Samples Received: 8/09/85
Report Date: 9/16/85

Analyses

Source	Emulsion Breaking Water Primary Treatment	Emulsion Breaking Water Secondary Treatment	Dehydration Water Primary Treatment	Dehydration Water Secondary Treatment	Coolant Water after Emulsion Broken
Log No. 85- Date Collected	6442 8/8/85	6443 8/8/85	6444 8/8/85	6445 8/8/85	6446 8/8/85
pH	6.0	5.1	4.5	4.0	4.9
BOD ₅ , mg/L	7,685	4,950	5,800	4,740	4,110
Freon Extractables, mg/L	353	81	132	23	94
Phenolics, mg/L PhOH	21	17	159	146	19
Ammonia, mg/L N	100	173	77	155	125
Cyanide, mg/L CN	0.026	0.026	0.046	0.021	0.017
Chromium, mg/L Cr	0.06	0.01	0.01	0.15	0.06
Copper, mg/L Cu	1.5	0.02	0.03	<0.01	0.01
Lead, mg/L Pb	3.3	2.2	3.7	0.10	2.2
Nickel, mg/L Ni	0.45	0.40	0.03	0.10	0.35
Zinc, mg/L Zn	1.3	0.21	0.04	0.09	0.22

3492-20

- Unless otherwise noted, analyses are in accordance with the methods and procedures outlined and approved by the Environmental Protection Agency and conform to quality assurance protocol.
- "Less-than" (<) values are indicative of the detection limit.

Chester Laboratories

A Division Of

The Chester Engineers

P.O. Box 1004

Pittsburgh

Pennsylvania 15225

Phone: (412) 266-5760

Laboratory Analysis Report For

BresLube-Penn, Inc.
Corasopolis, Pennsylvania

Analyses

Samples Received: 8/13/85
Report Date: 9/16/85

Source	Emulsion Breaking Water		Dehydration Water		Dehydration Water		Coolant Water	
	Primary Treatment	Secondary Treatment	Primary Treatment	Secondary Treatment	Primary Treatment	Secondary Treatment	Primary Treatment	Secondary Treatment
Log No. 85-	6566	6567	6562	6563	6564	6565	6565	6565
pH	5.8	4.9	3.6	4.3	1.8	5.5	5.5	5.5
BOD ₅ , mg/L	8,310	4,170	5,633	6,950	993	466	466	466
Freon Extractables, mg/L	846	9	870	28	111	17	17	17
Phenolics, mg/L PhOH	21	12	13	11	0.25	0.69	0.69	0.69
Ammonia, mg/L N	57	160	0.68	40	3.6	1.8	1.8	1.8
Cyanide, mg/L CN	<0.01	<0.01	0.85	0.28	0.062	<0.01	<0.01	<0.01
Chromium, mg/L Cr	0.11	0.03	<0.01	<0.01	0.12	0.02	0.02	0.02
Copper, mg/L Cu	1.6	0.06	0.07	0.10	0.08	0.06	0.06	0.06
Lead, mg/L Pb	2.3	3.6	13	2.0	0.48	0.07	0.07	0.07
Nickel, mg/L Ni	0.47	0.36	0.07	0.05	0.39	0.32	0.32	0.32
Zinc, mg/L Zn	1.2	0.20	1.9	0.69	3.2	1.0	1.0	1.0

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Chester Laboratories

A Division Of
The Chester Engineers
P.O. Box 8246
Philadelphia
Pennsylvania 19125
Phone: (610) 895-5700

Laboratory Analysis Report For

DresLube-Penn, Inc.
Corasopolis, Pennsylvania

Analyses

Samples Received: 8/09/85
Report Date: 9/16/85

Source	Composite of 1 Part 85-6442 3 Parts 85-6444 Substrate after 5 days Quiescent Settling	85-6711 Treated with Lime to pH 9.0 and 10 mg/L Sulfide added Filter through 5 μ Filter	Composite of 1 Part 85-6443 3 Parts 85-6445	85-6713 Treated with Lime to pH 9.0 and 10 mg/L Sulfide added Filter through 5 μ Filter
Log No. 85-	6711	6712	6713	6714
pH	4.8	8.4	4.5	8.5
BOD ₅ , mg/L	5,450	4,200	4,600	4,400
Freon Extractables, mg/L	182	57	451	28
Phenolics, mg/L PhOH	101	100	101	101
Ammonia, mg/L N	62	62	234	159
Cyanide, mg/L CN	0.032	0.032	0.028	0.029
Chromium, mg/L Cr	0.01	<0.01	0.09	0.01
Copper, mg/L Cu	0.37	0.06	0.01	0.02
Lead, mg/L Pb	0.54	0.12	0.50	0.18
Nickel, mg/L Ni	0.08	0.13	0.12	0.17
Zinc, mg/L Zn	0.38	0.09	0.11	0.02

BPDR 0002798

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Chester Laboratories

A Division Of

The Chester Engineers

P.O. Box 1344

Philadelphia

Philadelphia 19128

Phone: (610) 268-3788

Laboratory Analysis Report For

BresLube-Penn., Inc.
Corasopolis, Pennsylvania

Analyses

Samples Received: 8/13/85
Report Date: 9/16/85

Source	Composite of 1 Part 85-6566 1.5 Parts 85-6562 1.5 Parts 85-6564	85-6715 Treated with Lime to pH 9.0 and 10 mg/L Sulfide added Filter through 5 μ Filter	Composite of 1 Part 85-6567 1.5 Parts 85-6563 1.5 Parts 85-6565	85-6717 Treated with Lime to pH 9.0 and 10 mg/L Sulfide added Filter through 5 μ Filter
--------	---	--	---	--

Log No. 85-

pH
BOD₅, mg/L
Freon Extractables, mg/L
Phenolics, mg/L PhOH
Ammonia, mg/L N
Cyanide, mg/L CN
Chromium, mg/L Cr
Copper, mg/L Cu
Lead, mg/L Pb
Nickel, mg/L Ni
Zinc, mg/L Zn

6715	6716	6717	6718
3.4	8.5	5.0	8.6
3,350	3,500	5,400	3,500
280	35	20	20
9.6	9.2	9.7	9.2
11	11	11	11
0.062	0.062	0.055	0.052
0.07	0.01	<0.01	<0.01
0.96	0.03	0.02	0.01
0.76	0.10	0.13	0.08
0.30	0.23	0.19	0.21
2.3	0.26	0.70	0.13

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Chester Laboratories

A Division Of

The Chester Engineers

P.O. Box 626
 Philadelphia
 Pennsylvania 19125
 Phone: (610) 285-5740

Laboratory Analysis Report For

Bres-Lube Penn, Inc.
 Corsopolis, Pennsylvania

Samples Received: 8/29/85
 Report Date: 9/18/85

Analyses

Source	Coolant Water *1 Treatment	Coolant Water *2 Treatment	Emulsion Breaking Water *1 Treatment	Emulsion Breaking Water *2 Treatment	Dehydrated Water *1 Treatment	Dehydrated Water *2 Treatment
Log No. 85-	7099	7100	7101	7102	7103	7104
Date Collected	8/29/85	8/29/85	8/29/85	8/29/85	8/29/85	8/29/85
pH	1.0	2.5	1.0	4.8	6.0	6.6
BOD ₅ , mg/L	1,305	330	2,270	4,893	975	600
Freon Extractables, mg/L	62	2.4	96	56	54	21
Phenolics, mg/L PhOH	1.8	0.092	5.4	11	3.4	3.8
Ammonia, mg/L N	0.82	0.91	11	167	20	17
Cyanide, mg/L CN	<0.01	<0.01	0.01	0.01	<0.01	<0.01
Chromium, mg/L Cr	0.30	0.01	0.20	<0.01	<0.01	<0.01
Copper, mg/L Cu	0.11	0.07	1.1	0.02	0.04	0.03
Lead, mg/L Pb	5.2	0.13	3.7	<0.01	0.16	0.34
Nickel, mg/L Ni	0.47	0.02	0.43	0.24	0.01	0.01
Zinc, mg/L Zn	9.8	0.31	7.5	0.10	0.23	3.3

3102-00

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Chester Laboratories

A Division Of
The Chester Engineers
P.O. Box 1344
Pittsburgh
Pennsylvania 15206
Phone: (412) 260-5700

Laboratory Analysis Report For

Bres-Lube Penn, Inc.
Corazopolis, Pennsylvania

Analytes

Samples Received: 9/18/85
Report Date:

Source	Log No. 85-7195, pH 8.5 with Lime and 10 mg/L Sulfide and 1 g/L Activated clay added. Filter through 5µ Filter and Oil Skimmed	Log No. 85-7102 1.5 Parts 85-7100 1.5 Parts 85-7104 Settled for five days and Oil Skimmed	Log No. 85-7197, pH 8.5 with Lime and 10 mg/L Sulfide and 1 g/L Activated clay added. Filter through 5µ Filter
pH	1.1	4.7	8.5
BOD ₅ , mg/L	1,500	1,380	1,620
Freon Extractables, mg/L	37	16	13
Phenolics, mg/L PhOH	2.3	3.5	3.1
Ammonia, mg/L N	12	46	45
Cyanide, mg/L CN	<0.01	<0.01	<0.01
Chromium, mg/L Cr	0.14	<0.01	<0.01
Copper, mg/L Cu	0.63	0.02	<0.01
Lead, mg/L Pb	2.6	0.04	<0.01
Nickel, mg/L Ni	0.27	0.05	0.03
Zinc, mg/L Zn	5.3	0.12	0.02

1412-80

* Unless otherwise noted, analyses are in accordance with the methods and procedures outlined and approved by the Environmental Protection Agency and conform to quality assurance protocol.
* "Less-than" (<) values are indicative of the detection limit.

Chester Laboratories

A Division Of

The Chester Engineers

P.O. Box 9288

Pittsburgh

Pennsylvania 15228

Phone: (412) 288-8708

Laboratory Analysis Report

For

BresLube-Penn, Inc.
Corasopolis, Pennsylvania

Volatile Compounds

Samples Received:

Report Date: 9/16/85

Source	Composite of 1 Part 85-6442 3 Parts 85-6444 Subnata after 5 days Settling	Composite of 1 Part 85-6443 3 Parts 85-6445	Composite of 1 Part 85-6566 1.5 Parts 85-6562 1.5 Parts 85-6564	Composite of 1 Part 85-6567 1.5 Parts 85-6563 1.5 Parts 85-6565
	6711	6713	6715	6717
Log No. 85-				
Acrolein, ug/L	<10	<10	<10	<10
Acrylonitrile, ug/L	<10	<10	<10	<10
Benzene, ug/L	500	232	1,326	167
Bromoform, ug/L	<10	<10	<10	<10
Carbon Tetrachloride, ug/L	<10	<10	<10	<10
Chlorobenzene, ug/L	<10	<10	<10	<10
Chlorodibromomethane, ug/L	<10	<10	<10	<10
Chloroethane, ug/L	<10	<10	<10	<10
2-Chloroethylvinyl Ether, ug/L	<10	<10	<10	<10
Chloroform, ug/L	<10	<10	<10	<10
Dichlorobromomethane, ug/L	<10	<10	<10	<10
1,1-Dichloroethane, ug/L	53	28	33	<10
1,2-Dichloroethane, ug/L	<10	25	<10	<10
1,1-Dichloroethylene, ug/L	<10	<10	<10	<10
1,2-Dichloropropane, ug/L	<10	<10	<10	<10
cis-1,3-Dichloropropene, ug/L	<10	<10	<10	<10
trans-1,3-Dichloropropene, ug/L	<10	<10	<10	<10
Ethylbenzene, ug/L	105	<10	157	<10
Methyl Bromide, ug/L	<10	<10	<10	<10
Methyl Chloride, ug/L	<10	<10	<10	<10
Methylene Chloride, ug/L	1,355	444	1,773	378
1,1,1,2-Tetrachloroethane, ug/L	<10	<10	<10	<10
Tetrachloroethylene, ug/L	140	<10	77	<10
Toluene, ug/L	1,350	341	3,130	230
1,2-Trans-Dichloroethylene, ug/L	<10	<10	1,238	179
1,1,1-Trichloroethane, ug/L	669	277	479	49
1,1,2-Trichloroethane, ug/L	<10	<10	<10	<10
Trichloroethylene, ug/L	47	17	78	<10
Vinyl Chloride, ug/L	<10	<10	<10	<10

- Unless otherwise noted, analyses are in accordance with the methods and procedures outlined and approved by the Environmental Protection Agency and conform to quality assurance protocol.
- "Less-than" (<) values are indicative of the detection limit.

BPDR 0002802

Chester Laboratories

A Division Of

The Chester Engineers

P.O. Box 1088
Pittsburgh
Pennsylvania 15228
Phone: (412) 260-5700

Laboratory Analysis Report

For

BresLube-Penn, Inc.
Coraopolis, Pennsylvania

Volatile Compounds

Samples Received:

Report Date: 9/17/85

Source	1.5 Parts 85-6848			
	Composite of 85-6947 85-6849 and 85-6851 Settled For 5 days	1.5 Parts 85-6850 1 Part 85-6852 Settled For 5 days	Composite of 85-6908 85-6910 and 85-6912 Settled For 5 days	Composite of 85-6909 85-6911 and 85-6913 Settled For 5 days
Log No. 85-	6984	6986	7039	7041
Acrolein, ug/L	<10	<10	<10	<10
Acrylonitrile, ug/L	<10	<10	<10	<10
Benzene, ug/L	73	63	461	443
Bromoform, ug/L	<10	<10	<10	<10
Carbon Tetrachloride, ug/L				
Chlorobenzene, ug/L	<10	<10	<10	<10
Chlorodibromomethane, ug/L	<10	<10	<10	<10
Chloroethane, ug/L	<10	<10	<10	<10
2-Chloroethylvinyl Ether, ug/L	<10	<10	<10	<10
Chloroform, ug/L	13	296	10	605
Dichlorobromomethane, ug/L	<10	<10	<10	<10
1,1-Dichloroethane, ug/L	27	11	65	<10
1,2-Dichloroethane, ug/L	<10	11	70	84
1,1-Dichloroethylene, ug/L	<10	<10	12	<10
1,2-Dichloropropane, ug/L	<10	<10	<10	<10
cis-1,3-Dichloropropene, ug/L	<10	<10	<10	<10
trans-1,3-Dichloropropene, ug/L	<10	<10	<10	<10
Ethylbenzene, ug/L	16	<10	53	<10
Methyl Bromide, ug/L	<10	<10	<10	<10
Methyl Chloride, ug/L	<10	<10	<10	<10
Methylene Chloride, ug/L	90	63	1,000	10
1,1,2,2-Tetrachloroethane, ug/L	<10	<10	<10	<10
Tetrachloroethylene, ug/L	14	<10	78	10
Toluene, ug/L	251	157	1,100	750
1,2-Trans-Dichloroethylene, ug/L	18	<10	38	31
1,1,1-Trichloroethane, ug/L	171	114	<10	572
1,1,2-Trichloroethane, ug/L	<10	<10	<10	<10
Trichloroethylene, ug/L	<10	<10	78	55
Vinyl Chloride, ug/L	<10	<10	<10	<10

Chester Laboratories

A Division Of

The Chester Engineers

P.O. Box 5364

Pittsburgh

Pennsylvania 15223

Phone: (412) 288-5700

Laboratory Analysis Report For

Bres-Lube Penn, Inc.
Coraopolis, Pennsylvania

Samples Received:

Report Date: 9/17/85

Volatile Compounds

<u>Source</u>	Composite of 85-7101 85-7099 and 85-7103 Settled For 5 days	Composite of 85-7102 85-7100 and 85-7104 Settled For 5 days
	<u>For 5 days</u>	<u>For 5 days</u>
Log No. 85-	7195	7197
Acrolein, ug/L	<10	<10
Acrylonitrile, ug/L	<10	<10
Benzene, ug/L	208	18
Bromoform, ug/L	<10	<10
Carbon Tetrachloride, ug/L	<10	<10
Chlorobenzene, ug/L	<10	<10
Chlorodibromomethane, ug/L	<10	<10
Chloroethane, ug/L	<10	<10
2-Chloroethylvinyl Ether, ug/L	<10	<10
Chloroform, ug/L	115	89
Dichlorobromomethane, ug/L	<10	<10
1,1-Dichloroethane, ug/L	<10	<10
1,2-Dichloroethane, ug/L	<10	<10
1,1-Dichloroethylene, ug/L	<10	<10
1,2-Dichloropropane, ug/L	<10	<10
cis-1,3-Dichloropropene, ug/L	<10	<10
trans-1,3-Dichloropropene, ug/L	<10	<10
Ethylbenzene, ug/L	<10	<10
Methyl Bromide, ug/L	<10	<10
Methyl Chloride, ug/L	<10	<10
Methylene Chloride, ug/L	500	110
1,1,2,2-Tetrachloroethane, ug/L	<10	<10
Tetrachloroethylene, ug/L	<10	<10
Toluene, ug/L	330	52
1,2-Trans-Dichloroethylene, ug/L	<10	<10
1,1,1-Trichloroethane, ug/L	180	27
1,1,2-Trichloroethane, ug/L	<10	<10
Trichloroethylene, ug/L	<10	<10
Vinyl Chloride, ug/L	<10	<10

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- "Less-than" (<) values are indicative of the detection limit.

Chester Laboratories

A Division Of

The Chester Engineers

P.O. Box 5034
Pittsburgh
Pennsylvania 15223
Phone: (412) 268-1700

Laboratory Analysis Report For

Bres-Lube Penn. Inc.
Coraopolis, Pennsylvania

Analyses

Samples Received: 9/17/85
Report Date: 9/17/85

Log No. 85-7039,
pH 9.0 with
Lime and 10 mg/L
Sulfide and
1 g/L Activated
Clay Added

Log No. 85-7041
pH 9.0 with
Lime and 10 mg/L
Sulfide and
1 g/L Activated
Clay Added

Source	Coolant Water	*2 Treatment	Composite of 85-6908, 6910 and 6912 Settled for 5 days and Oil Skimmed		Composite of 85-6909, 6911, and 6913 Settled for 5 days and Oil Skimmed	
			7039	7040	7041	7042

Log No. 85-
Date Collected 8/22/85

pH	3.9	2.1	8.5	4.4	8.4
BOD ₅ , mg/L	2,270	3,050	3,400	3,015	3,210
Fraen Extractables, mg/L	128	170	56	63	55
Phenolics, mg/L PhOH	3.7	19	17	17	16
Ammonia, mg/L N	52	121	101	140	146
Cyanide, mg/L CN	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium, mg/L Cr	0.11	0.09	<0.01	0.03	<0.01
Copper, mg/L Cu	0.23	0.43	0.02	0.06	0.01
Lead, mg/L Pb	0.94	0.75	0.03	0.28	0.01
Nickel, mg/L Ni	0.89	0.38	0.15	0.28	0.08
Zinc, mg/L Zn	49	28	0.24	17	0.10

3482-88

- * Unless otherwise noted, analyses are in accordance with the methods and procedures outlined and approved by the Environmental Protection Agency and conform to quality assurance protocol.
- * "Less-than" (<) values are indicative of the detection limit.

Chester Laboratories

A Division Of

The Chester Engineers

P.O. Box 5345
Pittsburgh
Pennsylvania 15223
Phone: (412) 269-1700

Laboratory Analysis Report For

Bres-Lube Penn., Inc.
Coraopolis, Pennsylvania

Analyses

Samples Received: 8/23/85
Report Date: 9/17/85

Source	Emulsion Breaking Wastewater *1 Treatment	Emulsion Breaking Wastewater *2 Treatment	Dehydrated Water *1 Treatment	Dehydrated Water *2 Treatment	Coolant Water *1 Treatment
Log No. 85-	6908	6909	6910	6911	6912
Date Collected	8/22/85	8/22/85	8/22/85	8/22/85	8/23/85
pH	6.0	5.3	5.5	5.2	1.5
BOD ₅ , mg/L	3,350	4,900	4,770	7,200	3,170
Freon Extractables, mg/L	621	61	19	8	28
Phenolics, mg/L PhOH	15	13	38	38	4.0
Ammonia, mg/L N	90	141	145	146	15
Cyanide, mg/L CN	0.032	0.026	<0.01	<0.01	<0.01
Chromium, mg/L Cr	0.08	0.01	<0.01	<0.01	0.27
Copper, mg/L Cu	2.0	0.02	0.01	<0.01	0.64
Lead, mg/L Pb	0.62	0.07	<0.01	<0.01	2.6
Nickel, mg/L Ni	0.48	0.36	0.01	<0.01	1.1
Zinc, mg/L Zn	1.2	0.18	0.26	0.05	82

BPDR 0002806

3492-80

• Unless otherwise noted, analyses are in accordance with the methods and procedures outlined and approved by the Environmental Protection Agency and conform to quality assurance protocol.
• "Less-than" (<) values are indicative of the detection limit.

Chester Laboratories

A Division Of
The Chester Engineers
P.O. Box 1044
Pittsburgh
Pennsylvania 15225
Phone (412) 268-5700

Laboratory Analysis Report For

Bree-Lube Penn, Inc.
Coraopolis, Pennsylvania

Analyses

Samples Received: 9/17/85
Report Date: 9/17/85

Source	Log No. 85-6984, Date Collected	Composite of 85-6847, 6849 and 6851 Settled for 5 days and Oil Skimmed	Log No. 85-6984, pH 9.0 with Lime and 10 mg/L Sulfide and 1 g/L Activated Clay Added	Log No. 85-6848 1.5 Parts, 6850- 1.5 Parts, 6852- 1.0 Part, Settled for 5 Days	Log No. 85-6986, pH 9.0 with Lime and 10 mg/L Sulfide and 1 g/L Activated Clay Added
pH	6852	6984	6985	6986	6987
BOD ₅ , mg/L	8/21/85	--	--	--	--
Freon Extractables, mg/L	5.2	2.0	8.4	4.1	8.5
Phenolics, mg/L PhOH	8,250	1,500	1,400	1,500	1,400
Ammonia, mg/L N	80	218	22	27	29
Cyanide, mg/L CN	12	4.3	3.8	4.2	3.9
Chromium, mg/L Cr	111	18	17	27	24
Copper, mg/L Cu	<0.01	<0.01	<0.01	<0.01	<0.01
Lead, mg/L Pb	0.01	0.05	<0.01	0.01	<0.01
Nickel, mg/L Ni	0.01	0.25	0.01	0.03	<0.01
Zinc, mg/L Zn	3.0	0.22	0.01	0.47	0.03
	0.51	0.15	0.09	0.13	0.06
	0.84	0.60	0.07	0.52	0.06

BPDR 0002807

3482-80

• Unless otherwise noted, analyses are in accordance with the methods and procedures outlined and approved by the Environmental Protection Agency and conform to quality assurance protocol.

44-227

Chester Laboratories

A Division Of
The Chester Engineers
P.O. Box 2034
Pittsburgh
Pennsylvania 15224
Phone: (412) 268-3700

Laboratory Analysis Report For

Bres-Lube Penn, Inc.
Coraopolis, Pennsylvania

Analyses

Samples Received: 8/21/85
Report Date: 9/17/85

Source	Dehydration		Dehydration		Coolant		Coolant		Emulsion	
	Water		Water		Water		Water		Breaking	
	*1 Treatment		*2 Treatment		*1 Treatment		*2 Treatment		*1 Treatment	
Log No. 85-	6847		6848		6849		6850		6851	
Date Collected	8/21/85		8/21/85		8/21/85		8/21/85		8/21/85	
pH	6.0		4.2		1.4		3.1		5.6	
BOD ₅ , mg/L	810		805		1,195		1,020		5,220	
Freon Extractables, mg/L	176		--		78		17		440	
Phenolics, mg/L PhOH	1.9		2.7		0.42		0.38		16	
Ammonia, mg/L N	0.81		1.4		0.64		1.8		52	
Cyanide, mg/L CN	0.026		0.047		<0.01		<0.01		<0.01	
Chromium, mg/L Cr	<0.01		0.01		0.06		0.05		0.04	
Copper, mg/L Cu	0.15		0.04		0.06		0.07		0.82	
Lead, mg/L Pb	0.27		0.10		0.48		0.29		0.37	
Nickel, mg/L Ni	0.02		0.02		0.20		0.20		0.46	
Zinc, mg/L Zn	0.71		0.77		0.36		0.34		0.70	

3492-90

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MOON TOWNSHIP MUNICIPAL AUTHORITY

1000 Beaver Grade Road
CORAOPOLIS, PA. 15108
264-4300

WATER & WATER POLLUTION CONTROL SERVICE

AUTHORITY BOARD

August 7, 1985

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Consulting Engineers
R. W. Zollinger, P.E.
General Manager

Borough of Coraopolis
Municipal Building
1012 Fifth Avenue
Coraopolis, PA 15108

Re: Breslube-Penn Industrial
Waste Discharge Application

Gentlemen:

Enclosed is a copy of an Industrial Waste Application submitted to the Moon Township Municipal Authority from the Breslube-Penn Corporation's Moon Township Plant. Breslube-Penn is requesting to discharge pre-treated industrial waste water into the Borough of Coraopolis Sewer System at the Groveton Pump Station. The Authority's consulting engineer, BCM Eastern, Inc., has evaluated the application and has provided the enclosed initial response for your information.

Please review the enclosed information and provide any comments to this office at your earliest convenience. Copies of this letter are also being furnished to the Coraopolis Municipal Sanitary Authority and the Allegheny County Health Department for their comments.

Thank you for your cooperation in this matter.

Very truly yours,

MOON TOWNSHIP MUNICIPAL AUTHORITY

R. W. Zollinger, General Manager

RWZ/sm
enclosure
Certified Mail #PO24955719

cc: Allegheny County Health Department w/a
Coraopolis Municipal Sanitary Authority w/a
Township of Moon w/a
MTMA Board of Directors
R. Mills, Esq.
D. Nichols, PE



BCM Eastern Inc.
Engineers, Planners and Scientists

5777 Baum Blvd. • Pittsburgh, PA 15206 • Phone: (412) 361-6000

June 19, 1985

Mr. Richard W. Zollinger, General Manager
Moon Township Municipal Authority
1000 Beaver Grade Road
Coraopolis, Pennsylvania 15108

Subject: Industrial Wastewater Discharge Application
Breslube-Penn Inc.
BCM No. 00-3116-99, File 22(2)

Dear Mr. Zollinger:

As directed by the Authority Board at the meeting on April 17, 1985, we reviewed the information as set forth on the captioned application as amended by letter dated May 10, 1985. Our findings and comments are summarized as follows:

- Breslube-Penn operates two processes to recover and refine used lubricating oils at facilities located at 84 Montour Road near the Moon-Robinson Township border.
- Breslube-Penn proposes to discharge wastewater from the emulsion breaking process, condensate from the dehydration process, and a minimal amount of tank bottom drainage from the raw waste oil tank.
- The Chester Engineers conducted laboratory testing of two samples of raw wastewater from each process and results were submitted with the application by Breslube-Penn. Test results from additional analyses of raw and pretreated wastewater (laboratory bench) were submitted as a supplement to the original application. Tabulations of the test data have been attached (Exhibits 1 and 2) for the dehydration and emulsion breaking wastes.
- A maximum flow rate of 20,000 gpd is projected with 75% of the wastewater resulting from the dehydration process.

_____ A Member Firm of Belz • Converse • Murdoch • Inc. _____

BPDR 0002810



Mr. Richard W. Zollinger
June 19, 1985
Page 2

After review of the information submitted by Breslube-Penn, acceptance of the industrial discharge into the public system is not recommended unless reliable pretreatment is provided. Pretreatment is necessary to reduce concentrations of ammonia, oil and grease, copper, lead, nickel, and zinc.

Additional information relative to the treatability of the wastewater has been reviewed and our comments are as follows:

- Pretreatment involving flow equalization, pH adjustment with lime, sodium sulfide addition, mixing, and filtration was proposed by Chester Engineers prior to discharge to the public sewer system.
- The industrial discharge from Breslube-Penn must comply with the Rules and Regulations Governing Sewage Service published by the Moon Township Municipal Authority and Coraopolis Municipal Sanitary Authority, in addition to Pretreatment Standards for the Petroleum Refining Category promulgated by US EPA. A summary of the discharge analyses and most stringent discharge limitations has been attached (Exhibit 3).

If the profile of pretreated wastewater can be achieved continuously, the industrial wastewater could be discharged to the public sewer system for disposal. We cannot determine the reliability of the proposed pretreatment system from the preliminary treatability study. The information provided is not sufficient to recommend approval of the Breslube-Penn application for the following reasons:

- The profile of the wastewater used to evaluate the pretreatment suitability contained substantially lower concentrations of ammonia, copper, cyanides, lead, nickel, and zinc than the other samples.
- Removal percentages indicated by comparison of the raw and pretreated samples are insufficient to reduce toxic metal levels to acceptable values. Certification is needed from the designer that the proposed pretreatment will remove the prohibited contaminants and guarantee from owner that the system will be operated to preclude unacceptable wastes.
- The range of concentrations indicated a wide variation in the wastewater. An acceptable pretreatment system would be required to protect the public system from discharge of prohibited wastewater at all times. Therefore, the system must be capable of handling the toughest wastes.



Mr. Richard W. Zollinger
June 19, 1985
Page 3

- No analysis was submitted for the tank bottom drainings from the raw oil feed unit.
- In view of the fact that the Breslube-Penn wastewater could be conveyed through the Montour Run pump station, precautions must be taken to preclude the collection of light oils in the wet well for safety reasons.

Despite our concerns regarding the acceptability of the pretreated wastewater, we have preliminarily reviewed the magnitude of charges to assist Breslube-Penn in the evaluation of constructing onsite treatment facilities versus discharging to the public system.

Based on the discharge of 20,000 gallons per working day and a six-day work week, the estimated cost of transporting and treating wastewater from Breslube-Penn will require recovery of the following costs:

- User charges payable to MTMA include the standard charge according to the rate schedule and the CMSA surcharge for treatment based on the average strength (BOD₅) of weekly composite samples.

$$\text{MTMA Base Charge} = (520,000 \text{ gal/mon}) \times (\$1.29/1,000 \text{ gal}) \times 12 \\ = \$8,000/\text{yr.}$$

$$\text{CMSA Surcharge} = (520,000 \text{ gal/mon}) \times (\$1.94/1,000 \text{ gal}) \times \\ 0.001 \times (1356-250) \times 12 = \$13,400/\text{yr.}$$

- Costs for transportation of the wastewater via the Montour Run pump station will be imposed by CMSA.

$$\text{CMSA Transportation Charge} = (520,000 \text{ gal/mon}) \times (\$0.08/1,000 \\ \text{gal}) \times 12 = \$500/\text{yr.}$$

- Costs of composite sampling, testing, and monitoring operation of the pretreatment system would also be recovered by MTMA.

$$\text{Industrial Cost Recovery} = (60 \text{ samples/yr.}) \times (\$200/\text{sample}) = \\ \$12,000/\text{yr.}$$

- Total charges would be on the order of \$33,900 per year. In addition, Breslube-Penn would be responsible for all costs of constructing and operating pretreatment facilities.



Mr. Richard W. Zollinger
June 19, 1985
Page 4

In summary, we do not recommend approval of the proposed discharge of industrial wastewater without proper assurance that adequate pretreatment will be provided continuously and the system is protected from accidental spills that would endanger personnel and operations. Any agreement to accept industrial wastes must include proper clauses and remedies to enforce compliance.

Should you have any questions regarding this matter, please do not hesitate to call.

Very truly yours,

A handwritten signature in cursive script, reading "David G. Nichols".

David G. Nichols, P.E.
Assistant Vice President

DGN/dc
Enclosures

cc: Richard J. Mills, Esquire (w/enc.)

4500

APPLICATION REQUESTING SERVICE FOR
INDUSTRIAL WASTEWATER DISCHARGE

TO

MOON TOWNSHIP MUNICIPAL AUTHORITY

1000 Beaver Grade Road
Coraopolis, PA 15108

APPLICATION NO. _____

DATE: _____

Application is hereby made by BRESLUBE-PENN, INC. on
(Print or Type Firm Name)

(Mailing Address) 84 Montour Road Coraopolis, PA 15108
(Street) (City) (State) (Zip)

for permission to discharge wastewater for treatment at the Moon Township
Municipal Authority facilities from Breslube-Penn, Inc.

_____ on the
(Print or Type Owner, Tenant Name Producing Wastewater)

property located at 84 Montour Road Coraopolis, PA 15108
(Street) (City) (State) (Zip)

1. Type of Industry: Re-refiner of lubricating oils
(General Description)
2. Federal SIC Nos.: 2992
3. Raw Material Used: Used lubricating oils
(General Description-Add Additional Sheets as Necessary)
4. Products Produced: Re-refined lubricating oil and fuel oil
(General Description-Add Additional Sheets as Necessary)
5. Wastewater Producing Operations: See Attachment

(Full Description - Add Additional Sheets as Necessary)

6. Number of Employees: 13 Full Time/ Part Time

Time of Discharge: 12 AM/PM to 12 AM/PM Days per Week: S M T W T F S
(Working Day - cross out AM or PM) (Circle Days)

8. Wastewater Flow Rate: 20,000 maximum gallons per day

9. **Constituents of Wastewater Discharge:** See Attachment

(General Description - Attach Chemical Analyses to Application)

0. Pretreatment Facility: See attachment

(General Description - If Proposed)

11. Person in company responsible for industrial wastewater discharge:

Ahsen Yelkin

(Name)

Vice President of Operations

(Position)

264-4280

(Telephone)

I affirm that all information furnished is true and correct and that the applicant will comply with the Rules and Regulations of the Moon Township Municipal Authority.

Date April 17, 1985

Signature of Applicant:

Position of Signee: Vice President of Operations

**For Use By
the Moon
Township
Municipal
Authority**

Date Received: _____ **Date Reviewed** _____

Reviewed by: _____
(Name) (Position)

Action Recommended:

WASTEWATER PRODUCING OPERATIONS AND CHARACTERIZATION OF WASTEWATER

Breslube-Penn, Inc, located in Moon Township, Allegheny County, PA, re-refines used lubricating oils utilizing a number of processes. Used oil is brought into the plant and unloaded into a used oil storage tank. From this storage tank the used oil is either pumped to a dehydration process or to a chemical emulsion breaking process depending on the used oil quality. If the used oil has a bottom sediment and water (BS&W) content greater than 93%, it is pumped to the chemical emulsion breaking process. All other used oil is pumped to the dehydration process.

The dehydration process consists of interjecting the waste oil into a large boiler. The boiler is equipped with steam coils which are supplied with 100-125 psig steam. The used oil is heated to approximately 240°F. At this temperature water and "light end" hydrocarbons are boiled off and subsequently condensed at an overhead condenser. The condensate is then drained to an API separator to separate the water from the light ends. The water portion is presently discharged through two more API separators to Montour Run.

The chemical emulsion breaking process is presently utilized by Breslube for treating the used oil with a BS&W content greater than 93%. The process involves pH adjustment and the addition of an oil emulsion breaking chemical into an agitated vessel. After thorough mixing, the solution is allowed to sit in a quiescent state for a period of over 24 hours. This allows the less than 7% oil fraction to separate from the water portion. The remaining water is then drained through two API separators to Montour Run. The oil portion is sent on to the dehydration process for further oil/water separation.

The wastewater stream which Breslube proposes to discharge to the Coraopolis sewerage system consists of the water from the dehydration system, the water from the emulsion breaking process and a minimal amount of tank bottom drainings. The tank bottom drainings are the bottom few hundred gallons of a raw waste oil feed

tank. This portion is the water that has separated from the oil while the feed tank was being pumped to the processing system. This source contributes approximately 100 gallons per day of wastewater.

The wastewater is presently discharged into Montour Run under NPDES permit number PA0044695. A review of the Discharge Monitoring Reports (DMR) for the period from September 1983 through November 1984 has revealed the following effluent characteristics:

<u>Parameter</u>	<u>Maximum</u>	<u>Average Maximum</u>
Oil and Grease	41 mg/L	24.3 mg/L
Ammonia Nitrogen	32.4 mg/L	18.4 mg/L
BOD ₅	2,300 mg/L	1,356 mg/L
Phenol	35 mg/L	18.3 mg/L
pH	7.0 max, 5.4 min.	5.83 avg. min.
Flow	0.02 mgd	0.014 mgd
Total Suspended Solids	268 mg/L	102.15 mg/L
Copper	0.31 mg/L	0.08 mg/L
Zinc	1.50 mg/L	1.15 mg/L
Lead	0.45 mg/L	0.168 mg/L
Chromium	1.75 mg/L*	less than 0.27 mg/L
Cyanide	0.08	less than 0.03 mg/L
Nickel	0.56	0.22 mg/L
Temperature	121	104

*includes Hexavalent Chromium only

Breslube was discharging in violation of its NPDES permit for the 15 month period reviewed. The violations were mainly on phenols and BOD₅.

Breslube is addressing the elimination of these violations by looking at two alternatives. One would be to construct an activated sludge type of biological treatment plant on-site for continued discharge to Montour Run. Experience with this type of treatment at the Breslube-Canada facility has shown that 92 percent

reduction of BOD and 98.5 percent reduction of phenol concentrations can be achieved by such treatment. Breslube has submitted an application to DER for approval of plans to implement this alternative.

The other alternative, which we are addressing here, is to pretreat the wastewater and discharge it to the Coraopolis sewerage system. Under this alternative, the wastewater would need to be pretreated to ensure that it meets the standards of the USEPA, the Moon Township Municipal Authority and the Coraopolis Municipal Sanitary Authority.

Breslube's operation places them into the USEPA's Petroleum Refining-Lube Subcategory. The Pretreatment Standards for existing sources for that Subcategory, as revised on October 18, 1982, to discharge into a Publicly Owned Treatment Works, are as follows:

<u>Pollutant</u>	<u>Maximum For Any One Day</u>
Oil and Grease	100 mg/L
Ammonia (N)	100 mg/L

The Coraopolis Ordinance governing discharge to their Sewage Disposal System includes the following prohibitions:

<u>Parameter</u>	<u>Maximum</u>
pH	between 5.5 and 9.0
Temperature	150°F
Oil and Grease	100 mg/L
Copper	0.1 mg/L
Zinc	0.5 mg/L
Lead	0.1 mg/L
Boron	1.0 mg/L
Chromium	3.0 mg/L
Nickel	0.5 mg/L
Cyanides	2.0 mg/L
Sodium Chloride	10,000 mg/L
Free Oil	50 mg/L

The Moon Township Municipal Authority's guidelines limit the following specific constituents:

<u>Parameter</u>	<u>Maximum</u>
Temperature	100°F
Oil and Grease	120 ppm
pH	between 6.5 and 9.0

A comparison of the Breslube effluent quality presented in the DMR's with the USEPA and Coraopolis pretreatment standards indicated that pretreatment would be required for removal of lead, zinc, copper and nickel. In order to develop a pretreatment process that would ensure compliance with the regulations, samples were obtained from Breslube and analyzed and treatability studies were performed. One immediate conclusion that was drawn through such sampling and analysis was that the raw wastewater quality varied significantly from that reflected in the DMR's. The raw wastewater quality found was as follows:

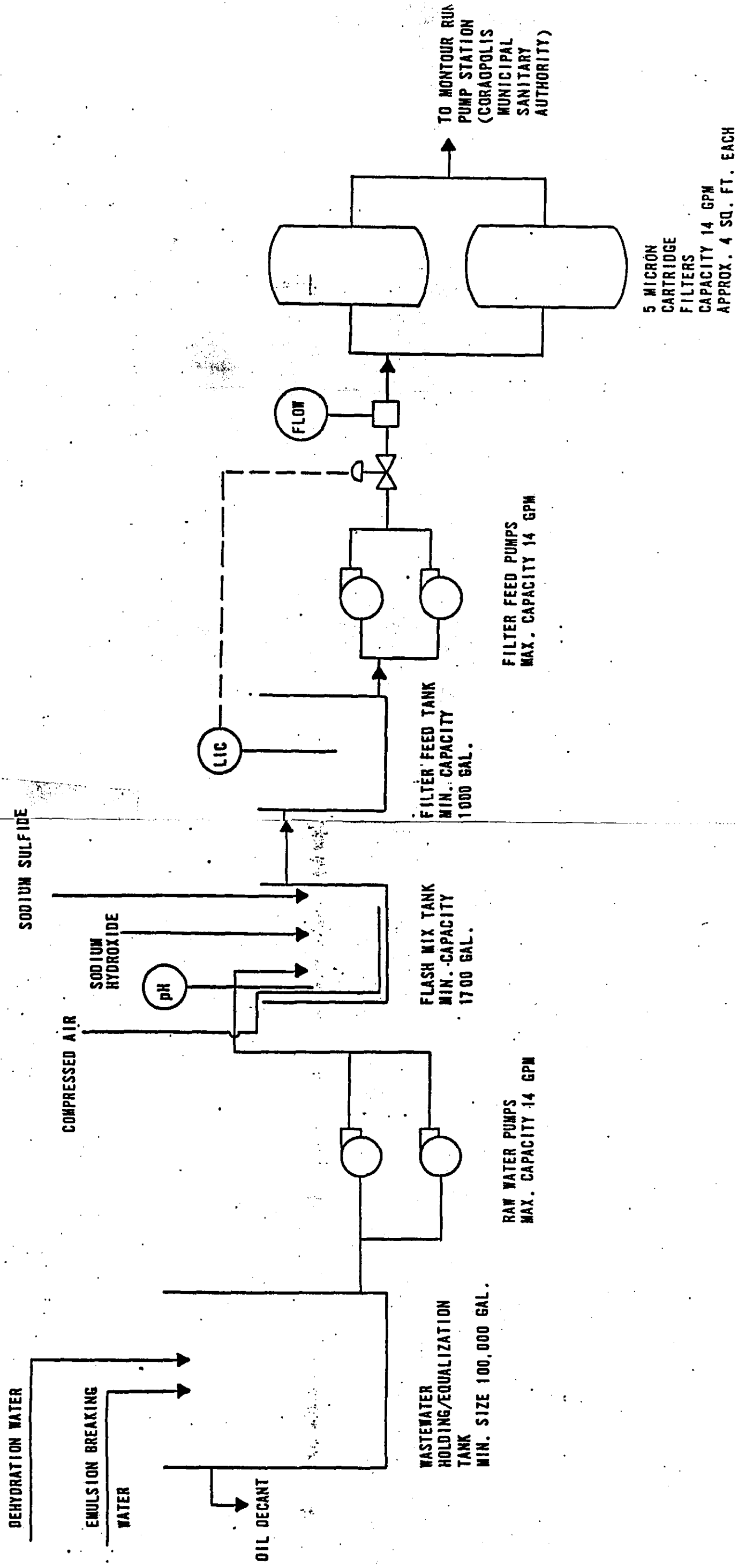
Source	Dehydration Water		Emulsion Breaking Water	
Parameter	Concentration			
	2/9/85 Grab	3/13/85 24-hr Comp.	2/9/85 Grab	3/29/85 Grab
Ammonia (N) mg/L	174		117	
Oil and Grease mg/L	32	502	230	877
Total Cyanide mg/L	1.0	less than 0.0005		
Total Chromium mg/L	less than 0.01	0.01	0.02	0.01
Copper mg/L	0.32	0.08	0.06	0.06
Lead mg/L	1.2	0.60	0.24	0.08
Nickel mg/L	0.03	0.11	0.38	0.21
Zinc mg/L	14	1.6	3.0	0.74
pH	5.2		6.2	

From these analyses, it was obvious that treatment would be necessary to lower the Ammonia, Oil and Grease, Copper, Lead, Zinc and Nickel concentrations as well as to raise the pH. After several trials the treatment scheme shown on Figure 1 was shown to be the most cost-effective in producing the desired effluent quality. The process will be as follows.

Wastewater from the existing processes will be routed through an API separator and pumped to an equalization/holding tank. This tank will be capable of holding a minimum of five days of wastewater flow. The wastewater will be pumped from this tank for continuous treatment on a 24 hour per day, 7 days per week basis. The treatment scheme will be designed to handle a maximum flowrate of 20,000 gallons per day.

The treatment scheme will consist of adding liquid sodium hydroxide into the wastewater in a flash mix tank using a pH controlled, variable volume chemical feed pump. The pH will be controlled to pH 9. Approximately 10 mg/L of sodium sulfide will be added to further form precipitates with the metal ions. The tank will be agitated using compressed air to effect some stripping of the ammonia. A detention time of approximately two hours will be provided. The waste stream will then overflow into a filter feed tank from which it would be pumped at a constant rate through one of two 5 micron cartridge filters. The filters will remove the precipitates formed in the flash mix tank as well as the insoluble oil and grease and other suspended matter. The flowrate through the filter would be metered and sampled using an automatic composite sampler. The "on-line" filter would be switched when the pressure drop through the filter, as indicated on influent and effluent pressure gauges, exceeds a predetermined value. The spent cartridges would be disposed of in an environmentally safe manner as necessary. The resultant discharge will be within the effluent quality limitations presented herein. Additional treatability studies to verify the dependability of the treatment scheme selected are being performed by Chester. The results of these studies will be issued when available. If modifications to the treatment process presented herein are required as a result of the confirmation studies, an addendum to this report will be issued.

To summarize, the proposed discharge will be a continuous 24 hour per day, 7 days per week discharge at a maximum flowrate of 20,000 gallons per day. The effluent concentrations after treatment will be within the pretreatment limitations promulgated by the various regulatory agencies. The wastewater will contain relatively high concentrations of BOD and phenol which are amenable to the treatment process provided at the Corsopolis Sewage Treatment Plant. The introduction of these pollutants into the plant is not expected to affect the plant's ability to provide the treatment efficiency required to ensure compliance with its NPDES permit. Such introduction is also not expected to affect the characteristics of the sludge which allow it to be disposed of in a landfill.



BRUNING 44-231 54774

Drawn By: HMS		Scale: NONE	The Chester Engineers	BRESLUBE-PENN. INC. PROPOSED WASTEWATER PRETREATMENT SYSTEM CONCEPTUAL SCHEMATIC	Dwg. No. FIGURE 1
Checked By: JTL		Date: APRIL 1985			
Approved By: JTL					

MOON TOWNSHIP MUNICIPAL AUTHORITY

1000 Beaver Grade Road
CORAOPOLIS, PA. 15108
264-4300

WATER & WATER POLLUTION CONTROL SERVICE

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November 5, 1985

Meyer, Darragh, Buckler,
Bebens & Eck, *Solicitor*
Betz-Converse-Murdoch, Inc.,
Consulting Engineers
R. W. Zollinger, P.E.
General Manager

Borough of Coraopolis
Municipal Building
1012 Fifth Avenue
Coraopolis, PA 15108

Re: Breslube-Penn Industrial
Waste Discharge Application

Gentlemen:

Enclosed is some supplemental information relative to the referenced industrial waste discharge application for your review. As previously indicated by our August 7, 1985 correspondence, the Breslube-Penn Corporation is requesting to discharge their pre-treated industrial waste water into the Borough of Coraopolis' sewer system at the Groveton Pump Station.

Before the Authority can act on their application, we have to obtain the Borough of Coraopolis' comments and/or approval regarding the acceptability of this industrial waste.

Please contact me at 264-4300 should you have any questions regarding this request.

Very truly yours,

MOON TOWNSHIP MUNICIPAL AUTHORITY


R. W. Zollinger, General Manager

RWZ/sm
enclosures
cc: ACHD - all w/a
✓CMSA
MTMA Board of Directors
R. Mills, Esq.
D. Nichols, PE

Coraopolis Municipal Sanitary Authority

BOROUGH BUILDING
CORAOPOLIS, PENNA. 15108
Phone, 264-3002
January 20, 1986

R. W. Zollinger, General Manager
Moon Township Municipal Authority
1000 Beaver Grade Road
Coraopolis, PA 15108

Re: Breslube-Penn Industrial
Waste Discharge Application

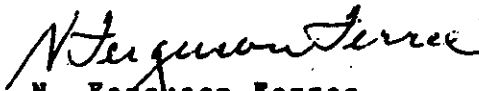
Dear Mr. Zollinger:

This is in answer to your letter of November 5, 1985 concerning the industrial waste of the above applicant.

The directors of the Coraopolis Municipal Sanitary Authority considered the request at their recent meeting and were unable to approve it. The problem from the directors standpoint seems to be the extension of the service lines and the opening of a new service area in addition to the problem of the industrial waste.

Very truly yours,

CORAOPOLIS MUNICIPAL SANITARY AUTHORITY


N. Ferguson Ferree
President